

NEW ENGLAND NOTE

OCCURRENCE OF *SCIRPUS GEORGIANUS*  
(CYPERACEAE) IN MAINE

ARTHUR HAINES

1568 US Route 1, Freeport, ME 04032  
e-mail: arthur.haines@worldnet.att.net

*Scirpus georgianus* R. M. Harper is a perennial, grass-like herb of wetland communities. It is closely related to *S. atrovirens* Willd., and the two are part of a group of five morphologically similar species in North America [e.g., *S. atrovirens*, *S. flaccidifolius* (Fernald) Schuyler, *S. georgianus*, *S. hattorianus* Makino, and *S. pallidus* (Britton) Fernald]. The *S. atrovirens* complex is recognized by: trifid styles; mucronate scale apices; relatively straight perianth bristles with thin-walled, round-tipped retrorse barbules confined to the distal ½ of the bristle; and a haploid chromosome number of  $n = 25–28$  (Schuyler 1967; Schuyler and Whittemore, in press).

Identification of *Scirpus georgianus* relies primarily on perianth bristle morphology. This species frequently lacks bristles altogether. When bristles are present, they number 1–3 per flower, are typically very short (rarely up to 0.75 times the length of the achene), and are smooth or have a few retrorsely oriented barbules near the very tip of the bristle. All other species of the *S. atrovirens* complex have 5 or 6 perianth bristles that are usually more than 0.75 times as long as the achene and are retrorsely barbellate in the distal ½ or more of the bristle. Further, the haploid chromosome numbers of *S. georgianus* ( $n = 25, 26,$  and  $27$ ) are relatively unique in this complex (Schuyler and Whittemore, in press). Only the  $n = 27$  cytotype is shared with another species—*S. flaccidifolius* of the mid-Atlantic and southeastern United States.

The taxonomic boundaries of *Scirpus georgianus* have been interpreted differently by different authors over the years. Fernald (1921) reduced this species to a variety as *S. atrovirens* var. *georgianus* (R. M. Harper) Fernald. He recognized this taxon by its shorter perianth bristles and lower leaves with fewer cross-septae. The illustration that accompanies the description in *Gray's Man-*

*ual of Botany*, (page 274; Fernald 1950) clearly shows four perianth bristles (only one side of the fruit is visible) that are nearly as long as the achene. This indicates that Fernald included within *S. atrovirens* var. *georgianus* a plant considered to be a different species by Schuyler (1967)—*S. hattorianus*. Cronquist (in Gleason and Cronquist 1991) went a step further and included all the species in the complex into a large, variable *S. atrovirens*.

While reviewing specimens of *Scirpus georgianus* at the Harvard University Herbaria, I discovered a specimen annotated by A. E. Schuyler as *S. georgianus* from Maine. This was the first voucher known to me of this species from Maine. Unfortunately, the label did not contain detailed locality information.

SPECIMEN CITATION: UNITED STATES. Maine: York Co., North Berwick, springy, grassy bank, local, 22 Jul 1899, *Parlin 1194* (NEBC).

On 5 August 2001, Lisa Kuronya and I performed a vehicle survey of rural roads in North Berwick for *Scirpus georgianus*. Species of this complex routinely occur in human-disturbed habitats such as low areas in fields, ditches, and on farm pond shores (Schuyler and Whittemore, in press). A small colony of *S. georgianus* was discovered in a wet ditch on a narrow, gravel road in the eastern half of the township. Seventeen stems were counted in a 3 × 1 m area. Associated species included *Viburnum dentatum* L. var. *lucidum* Aiton, *Glyceria striata* (Lam.) A. S. Hitchc., *Carex projecta* Mack., *C. scoparia* Schkuhr ex Willd., *Juncus effusus* L., *Euthamia graminifolia* (L.) Nutt., and *Symphotrichum lanceolatum* (Willd.) G. L. Nesom. The site occurred at 62 m above mean sea level. A few stems had been cut or knocked over by mowing for road maintenance.

SPECIMEN CITATION: UNITED STATES. Maine: York Co., North Berwick, roadside ditch, E side of Billy Lane, at 62 m elevation, with *Viburnum dentatum* var. *lucidum*, *Glyceria striata*, *Carex scoparia*, *Juncus effusus*, and *Euthamia graminifolia*, 5 Aug 2001, *Haines & Kuronya s.n.* (MAINE).

The occurrence of *Scirpus georgianus* in Maine is not surprising given that it occurs on Prince Edward Island and in Strafford County, New Hampshire (Schuyler and Whittemore, in press). Though this species is widely distributed over much of the eastern half of the United States, it is rare and disjunct in the northern part of its range, including New England (Schuyler 1967). *Scirpus*

*georgianus* is a target species of the Herbarium Recovery Project. This two-year project, directed by the New England Wild Flower Society, is collecting information on some of New England's rarest and/or poorly known native taxa through herbarium survey. Information gathered from this research will be used to direct conservation efforts in New England.

ACKNOWLEDGMENTS. A portion of the information presented herein was collected during review of specimens for the Herbarium Recovery Project. The New England Wild Flower Society is thanked for permission to use this information. Alfred Schuyler is also thanked for permission to use the draft *Scirpus* contribution for the *Flora of North America North of Mexico*.

#### LITERATURE CITED

- FERNALD, M. L. 1921. The Gray Herbarium expedition to Nova Scotia. *Rhodora* 23: 134.
- . 1950. *Gray's Manual of Botany*, 8th ed. Von Nostrand Reinhold Co., New York.
- GLEASON, H. A. AND A. C. CRONQUIST. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*, 2nd ed. The New York Botanical Garden, Bronx, NY.
- SCHUYLER, A. E. 1967. A taxonomic revision of North American leaf species of *Scirpus*. *Proc. Acad. Nat. Sci. Philadelphia* 119: 295–323.
- AND A. T. WHITTEMORE. In press. *Scirpus*. In: *Flora of North America* Editorial Committee, eds., *Flora of North America North of Mexico*, Vol. 23. Oxford Univ. Press, Oxford and New York.